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AMERICAN FARMER ESTABLISHMENT.

BALTIMORE: TUESDAY, JULY 11, 1837.

THE TURNIP CULTURE.

We insert in this day's paper, a very interesting essay on the culture of turnips. With few exceptions we see nothing in it to object to; we will however make a few remarks, in the order in which those of the author are arranged.

Soil—Upon the subject of soils, we have but a single word to say in addition to those in the essay. It is this,—that *new*, or *fresh* ground, is best adapted to the growth of this root. Where there are no such soil on the farm, the best course will be to supply it with a substitute, which is easily done, by ploughing in either a vegetable covering, or manuring broadcast with half rotten manure of some kind, to be ploughed in; that made by cattle is best, but in either case, a top dressing of ashes should be given just before sowing the seed.

Seed and Sowing—We prefer drilling wherever that mode is practicable. And as to the quantity of seed, we think that *half a pound* is quite sufficient; for if the *grass-hopper*, or fly, attack your patch, it matters not whether there be the plants of half a pound, or ten pounds on your ground, the chances are as nine to ten against you, that the *whole* will be swept off. Should neither of these enemies appear, the half pound of seed will give you more plants than ought to stand on the acre, so that, as well as a saving of the price of the seed, great economy in the thinning out the plants will be effected. In addition to the *soot* and *quick-lime* recommended, we would strew, in the proportion of 4 lbs. to the acre, of the flour of sulphur on the plants; to be put on early in the morning before the dew is off. It will act in the double capacity of repellant of the insect, and as manure.

Storing—The storing in pits we prefer to putting away in cellars. If covered with 9 inches of mould, with a wisp of straw at the top to act as a ventilator, they will keep much better, and not be so subject to sprouting as if kept in a cellar.

Time of Planting—From our own experience we have come to the conclusion that turnip seed should, if possible, be put in by the 20th of July, and at all events during that month. By early planting this advantage is gained. Should the seed not germinate, or should the first sown plants be cut off by insects, there will still be time to resow with the certainty of maturing the crop.

CLINE'S COMBINED PLOUGH.

The inventor of this implement made a trial of one of them at our place, a few days since, in the presence of several gentlemen, farmers and machinists, the result of which was highly satisfactory to all present. They are constructed with from two to five shares. The one used upon this occasion had two steel shares, and was worked by one horse, which power was sufficient to enable it to do its work with great ease and exactness. As the reader will suppose, it carried two furrows, which were laid with much nicety. From the peculiar mathematical propriety with which the proportions of the plough are arranged, there is no jostling or inequality in the resistance, so that whether regard be had to the horse or the ploughman, the labor is lighter, much lighter, than with the common plough. Mr. Cline managed it most of the time with his finger and thumb resting on the reins placed on the cross-bar extending from handle to handle. The wood-work is got up pretty much upon the plan of a harrow with handles, is compact, strong, and competent to perform any work with proper force. The work performed at my place was ploughing in a small field of corn, and we were surprised to observe the closeness with which Mr. C. was enabled to approach the corn without injury. Indeed so exactly does it do its work, that there is little left for the hoers to perform; for, in fact, that as well as turning up the ground is done by the implement itself. So satisfied are we of its immense superiority, that we have engaged one, with a view of working our corn. To us it appears, that his double shared implements are competent, with the propelling force, to do as much more work in any given time as any other plough we have ever seen, without increasing the labor to either man or beast.

Mr. Cline is a resident of Bucks county, Pennsylvania, a practical farmer, and knowing the deficiencies of the old plough, set himself sedulously to work to produce an implement that should supply them, and we think we hazard nothing in saying, that he has been triumphantly successful. He has a patent, and as we believe he deserves it, we sincerely hope he may reap a fruitful harvest of profit as the reward of his ingenuity and perseverance; for certainly he has rendered a most important service to his agricultural brethren, by reducing the expense of cultivation so far as the plough is concerned, fifty per centum. As "money saved, is money gained," so has Mr. Cline placed it within the power of every husbandman, to economise his ploughing expenditures to the amount named by us. At times like the present, when from the precariousness of our seasons, crops are uncertain, it becomes the farmer or planter to avail himself of every possible opportunity to curtail his costs of labor, therefore, it appears to us, that a more eligible means of effectuating this object, has seldom been presented to the public than the present, in the shape of labor-saving machinery.

We did not learn from Mr. Cline that he had disposed of any rights; but for the benefit of the community, we trust he may diffuse them in every direction of our widely spread country; for his plough is worthy of the most extended patronage, and we doubt not, when its advantages become generally known, it will receive it.

THE TOBACCO INTEREST.

We publish below the correspondence of *Thos. F. Bowie, Esq.*, of Prince George's county, Maryland, and Messrs. *Riley & Van Amringe*, of Philadelphia, on the subject of high duties imposed upon American tobacco by certain governments of Europe, and the monopolies established by others, to the great prejudice of the interests of tobacco growers in this country. This correspondence is of the deepest interest, and contains statements and facts which deserve the most serious attention. The letter of Mr. Bowie is so full upon the subject of remedial measures, that it leaves us nothing to add, and we, therefore, invoke for it

an attentive perusal, as well as for that of Messrs. Riley & Van Amringe. According in the views expressed by Mr. Bowie, we will add our humble hope to his, that the convention will not only be called, but act in that spirit of manly independence, called for by the wrongs of the tobacco growers, and our national honor.

Upon one of the statements of Messrs. Riley & Van Amringe, we propose to make a remark.—They compute that $2,000,000 worth of Spanish obacco and cigars are annually imported into our country; express the opinion, that "nearly, or quite all of this article could be grown in our own country," and further observe, that "seed leaf is considerably grown in Connecticut, and some in Pennsylvania," but that "these states are not as favorable to its production as states in lower latitudes."

With regard to the growth of the *Cuba* variety of tobacco in this country, there can be no question. We recently enjoyed a cigar, the tobacco of which was grown in Dorchester county, Md., by that intelligent agriculturist, Dr. *Meuse*, who obtained the seed at Havana; which, for flavor was as fine as nine-tenths of the cigars imported direct from Havana, we say this without reserve, considering ourself a competent judge of the article. Surely if these two millions of dollars can be kept at home, it is worthy of a trial; that the requisite quantity of leaf to supply the demand, could be raised in the middle and southern and western states, we apprehend there can be no doubt seriously entertained; that raised farthest south, we believe would be most exquisite in flavor, and consequently command the best price.

UPPER MARLBRO', June 19th, 1837.

Mr. Editor—I send you the enclosed letter addressed to me by Messrs. Riley & Van Amringe, of Philadelphia, for publication in your paper, under the conviction that the information it contains, and the views expressed by the writers, will prove highly interesting and useful to those who feel an interest in the success of the efforts which are now making in favor of the Planters of Tobacco. You will recollect that much of the information which the Convention of Tobacco Planters recently held in Washington, derived, upon the subject of the Tobacco trade with foreign nations, and the high rate of duties imposed by them on Tobacco, was furnished by "a circular" addressed to them by the gentlemen who have written this letter; and, to no one are we more indebted, than to these gentlemen, for the zealous interest manifested by them in behalf of the measures which have been adopted, and are now in progress, to benefit the condition of the Planters of Tobacco, and to place that valuable and important branch of our trade with foreign nations, upon grounds of reciprocal advantage with all others. The views expressed by Messrs. Riley & Van Amringe, certainly deserve the serious consideration of the friends of these measures, and their attention cannot be too soon awakened to the importance of commencing early operations, with a view of calling the attention of the next Congress of the United States to the subject. Our Tobacco trade with Foreign nations, is more valuable, by far, than that of any other article of export, with the exception of cotton; and, that too, under circumstances of the greatest disadvantage, clogged as it is with restrictions, monopolies, and excessive duties by foreign Governments.

The exports of Tobacco, from the United States for the last year, amounted to upwards of $12,000,000, while that of cotton, amounted to upwards of $80,000,000. The Tobacco trade is, in fact, the second in importance and magnitude, which this country has with foreign nations, and, it is the duty of Congress to protect so large and valuable an interest, from the ruinous effects of foreign Government monopolies, and excessive duties.

Our exports of Tobacco, to England alone, for the year ending 30th September, 1836, where a duty of $1,000 on every hogshead is paid, amounted to $5,202,645. To France, where a Government monopoly exist, and where importation of American Tobacco is limited to 5,000 hogsheads only, the value of our exports of Tobacco, during the same year, amounted to only $908,699. We imported from France during the same year, silk goods to the value of $15.611,-188; cotton goods to the value of $2,199,982; Wines to the value of $1,942,179; and Brandy to the value of $1,109,846. Thus it will appear, that while France excludes our Tobacco, one of our most important branches of national industry, we are in fact receiving with little or no duty, her silks, wines and brandies, all articles of luxury, to the value of $18,663,193 per annum. I ask seriously, ought such a state of things be permitted to exist? Will the States of Virginia, Maryland, Ohio, Kentucky, Tennessee, Missouri, North Carolina, and Indiana, any longer submit to so gross and palpable an outrage upon the prosperity and interest of their citizens? Congress ought, and no doubt will, if properly invoked, pass some retaliatory measures, against those foreign Governments who have conspired together, to exclude our Tobacco from their ports. The whole South will unite with us upon this question. They have evinced a disposition to do so already, and if we are but true to ourselves, we must ultimately succeed. The wrongs and injuries we are suffering, are too monstrous to be tolerated any longer. For the last twenty years no people on the face of the Globe have been more oppressed and plundered, than the growers of Tobacco in this country—their labor has been less rewarded, and their interest more neglected, than those of any other class of our population. It is now high time that they should awaken to a proper sense of their rights.

To the magnanimity, wisdom and sense of justice of the last Congress, the planters are much indebted for the favorable legislation of that body, upon a subject intimately connected with their prosperity, and we must look with intense interest to the result of those measures. But we must not permit our efforts to slumber. We shall hear, before the next regular period for the meeting of Congress, from some of our Foreign Ministers, who have received instructions from the President, upon the subject of a reduction of the duties on Tobacco by foreign Governments, of the probability of their success; and, in case their efforts, by negotiations, should be likely to prove unavailing, we ought to be prepared to resort to some other method, to obtain a redress of our grievances. The suggestions of Messrs. Riley & Van Amringe, on this subject, seem very appropriate at this time. Let the planters of Tobacco petition Congress at its next session, to adopt some retaliatory measures against these foreign Governments, which have either by excessive duties, Regies, or other monopolies, imposed such heavy restrictions upon our Tobacco trade. It is a measure of self-protection which is called for by a just and proper regard for our interest, and, I cannot doubt, that it will meet with the favorable consideration of Congress. It it is our duty, at all events, to use every exertion to produce so desirable a result, and I sincerely trust, that the Planters of Tobacco throughout the Union, will, by their firm and united efforts, evince a fixed determination to take up the matter seriously, with a view to some speedy and practical end.—You may have probably seen, that the President of the Convention of Tobacco Planters, which assembled in Washington last winter, has been invited to re-assemble that body some time during the first week of the next *regular* session of Congress. I hope it will be done; and that ample notice will be given of the time and place of meeting, so that a full representation may be sent from all the other States in the Union interested in the cultivation of Tobacco. No fitter occasion could be presented, than for that Convention thus assembled, representing as it would, the entire interest of the great body of Planters of Tobacco in the United States, to send such a petition to Congress. Such an appeal in favor of our just rights could not be disregarded, without a total violation of those duties which a wise and parental Government so essentially owe, to so large and oppressed a portion of her people.

Yours, respectfully,

THOMAS F. BOWIE.

PHILADELPHIA, 12th June, 1837.

Thos. F. Bowie, Esq.,

Dear Sir:—Your favor of March 9th was duly received, but was not answered earlier owing to the protracted absence of Mr. Van Amringe.

The Convention of Planters which met in Washington last winter, so far as the proceedings shew, confined its labors exclusively to the high duties on Tobacco in foreigh countries. But, in our opinions, the Regies, or monopolies by the different governments of Europe, are much more serious embarrassments to the trade than the duties. High duties of course decrease consumption; but the market being left open to commercial enterprise, and consumption being, in a considerable degree, proportioned to the general prosperity and habits of the people, they are, by no means, so pernicious as exclusive monopolies. Our exports of Tobacco, for instance, to England, for 1835 were 27,563 Hhds. valued at $3,397,-415. And in the same year we exported to the Hanse Towns 27,989 Hhds. valued at 1,539,362.

Thus you will perceave that the value of our Tobacco trade with England is more then double its value to the Hanse Towns; and yet the duties in England are more than six times the original cost of the article, while in the Hanse Towns it is a mere nothing. But no shipments of Tobacco are made in France, Italy, &c., but in the fulfilments of contracts with the respective governments, which of course excludes private enterprise.—France, on an average, takes about 5000 hhds. from this country, which is supplied by two or three contractors. Austria is supplied by one contractor, and so of the rest. Thus we have only three, four, or five purchasers in our market for a very large proportion of our exports, instead of the usual mercantile competition. Competition is the life of trade. It not only operates beneficially on a market during the continuance of the demand, but the activity begotten by it, is beneficial to the whole stock remaining on hand. Besides the stock always on the foreign merchants' hands (if the business were open to them) would probably equal one year's exports, which would of course be a great benefit to the growers of this country. But these Regies, or foreign monpolies, also prevent the growers of Tobacco of this Country, from entering into competition with the foreign grower, which they would successfully do if the market were open to them, unless the duties were excessive. You will perceive, therefore, that although we agree with the Planters' Convention that the high foreign duties are very injurious to the trade, yet we think that the Regies or monopolies, are far more injurious. for the reasons already given, viz: 1st. Because our Planters, by reason of the monopolies, are prevented from entering into competition with foreign growers of Tobacco, either in quality or quantity: And 2ndly. The dealers and growers of Tobacco in this country are deprived of the benefit of an extensive foreign competition in the purchase of this great staple, in our own markets. We have therefore two great objects to be attained by treaty with foreign nations, viz: The reduction of excessive duties, and the abolishment of Regies or monopolies. Now both these great objects might be obtained by strong and earnest representations to foreign governments. Take France for an example, we take her Wine, Brandy, Silk, cotton fabries, madder, fruit, &c. She takes nothing from us, of any great value, but Cotton—Tobacco being subjected to the Regie. Her Wine and Brandy, are certainly no more valuable than our Tobacco; and her silk can be dispensed with or furnishsd by others who are or will be more liberal in trade. Our country is better suited to the culture of the grape and the silkworm than France is to that of tobacco. It is a forced cultivation protected by a monopoly. Would it not be better for France to be supplied with tobacco from us, than to be cut off from supplying us with wine, brandy and fruit, to say nothing of her madder, silk and cotton goods? Would it not be well for the tobacco planters to petition Congress, the next session, to adopt retaliatory measures against European governments, which have, either by excessive duties, Regies or monopolies, subjected one of our great staples to so much embarrassment? If such petitions should come forward from North Carolina, Virginia, Maryland, Ohio, Kentucky, Tennessee, Missouri and Indiana, might they not induce foreign governments to deal more liberally with us in reference to this important branch of our trade? Would they not at least enable our ministers to treat with them more seriously, and with a better prospect of success? And if the committee of Congress, to whom the subject would be referred, should adopt a politic report, even if it should not be acted on at the next session, foreign governments would regard it with much interest, and no doubt be disposed to adopt some measures of relief.

Another very important subject which we believe was overlooked by the Planters' convention, is the fact that we import Cigars and Tobacco to an amount we think fully equal to half the total value of our exports of tobacco. In the single item of cigars, our importations for last year (1836) were to the value of 1,058,857 dollars; of which 1,048,731, was furnished by Cuba. As Spanish leaf tobacco pays an ad valorem duty, we have no means of ascertaining the value of importations of leaf, but suppose it to be of greater value than the Cigars. Thus we import annually foreign tobacco to an amount over 2,000,000; which is nearly equal to one half the value of our exports of this article. We think nearly, or quite all of this article could be grown in our own country. Seed leaf is considerably grown in Connecticut, and some in Pennsylvania. But these states are not as favorable to its production as states in lower latitudes.

The law of your state, which prohibits the exportation of tobacco, without inspection, to a sister state, is selfish, and is certainly prejudicial to the interest of growers, and consequently to the state. As you say, it gives Baltimore a monopoly, and monopolies are always injurious. Inspection laws are, or should be, made only to prevent frauds, but their tendency never should be to give one class of citizens, or one city, an advantage over others. As the agricultural interest lies at the foundation of all prosperity, it should never be shackled more than is necessary to prevent frauds. At least it should never be made tributary to any other class, or place.

We think, without vanity, we may say, that our house has devoted more attention to the subject of tobacco than any other; and we will rejoice to find our efforts seconded by Planters.—It is with this view we suggest the above.

We will be much obliged if you will give us, at your earliest leisure, the names of all the counties in your State which grow tobacco, and, as early as possible, the average quantity grown in each county. Also the same of Virginia.

Considerable capital is employed in the tobacco trade here, but we do not know of any persons who would be likely to want agents for the purchase of tobacco. We are exclusively a Commission House.

Respectfully yours,
RILEY & VAN AMRINGE.

SPRING WHEAT.

As there seems to be considerable anxiety among agriculturists to learn the character of this newly introduced variety of the wheat family, we have appended the following extracts of letters and remarks upon the subject, which have been communicated by a gentleman in Pennsylvania. Some of them have appeared before, but as there appears to be a connected link running through them, we have not felt at liberty to separate them.

EXTRACTS FROM LETTERS.

J. Buel, esq.—Sir: I send you enclosed a small sample of *Italian Spring Wheat*. This sample is taken from a parcel I purchased a few years since, and is part of the four years crop since introduced of the original importation. The seed was brought to this country in 1833 by Signor J. B. J. Carbonai, from the city of Florence, Italy—The cask was sold for charges; I bought it, and finding it a heavy beautiful grain, prevailed with several of our farmers to sow it; the result was most gratifying. Sowed side by side with our country spring wheat, it exceeded it two feet in height, standing on the ground. It has succeeded well every year since—it yielded double the quantity, weighing sixty-three pounds to the bushel, and producing from twenty-five to thirty-five bushels to the acre; grows well on every variety of soil on which it has been sown. Very few of our farmers will now sow winter wheat, finding this wheat a sure crop.

Your ob'dt JAY HATHAWAY.
Rome, N. Y. March 24, 1836.

J. Buel, esq.—I have the pleasure to inform you that the crop of Italian spring wheat through this and the adjoining towns, is remarkably fine, while our winter wheat crop has in most cases failed, whole fields having been winter killed. The produce this season is rated from twenty-five to thirty-five bushels per acre and choice samples. The wheat deserves the attention of agriculturists in every section of the country, as it has not failed in any instance.

Your obedient servant,
JAY HATHAWAY.
Rome, Aug. 15th, 1836.

Extracts from the Cultivator, printed at Albany N. York, for April, 1837.

"There seems to be two kinds of Spring Wheat of great repute in Oneida county, the Italian and Siberian, which we have till now supposed to be identical. The kind noticed by Mr. Hathaway is alleged to have come from Florence, and is called Italian. We have received a sample from Dr. Goodsell of Utica, said to have come from Switzerland, which is denominated Siberian. The Siberian is the largest bury, and dullest color; the Italian the smallest and brightest grain."

"The character of the Italian wheat has been already given by Mr. Hathaway; that of the Siberian we derive from Dr. Goodsell. Mr. Tower, near Deanville, as we are advised by a gentleman from that place, raised 160 *bushels* on *four acres* last summer. It makes a *heavy* return in *flour*, Dr. Goodsell having obtained 50 *lbs. 6 oz.* from a *bushel*, 2 lbs. 6 oz. above the standard of good winter wheat. It is believed it will escape the ravages of the grain worm, from the circumstance of its being a late variety. Both kinds are in great demand, and have been purchased up at $3 per bushel. Our neighbor Thorburn, the seedsman, has procured a few bushels of the Italian, at an expense of about $4.50, and sells at $5 per bushel. We intend to try both kinds."

"*J. L. Pierce*—Dear Sir: I think I shall be able to get a few hundred bbls. of the Italian Spring wheat this fall. The crop now looks finely; it is a feast to look at it. It is a heavy grain, often weighs 63 lbs. to the bushel, makes handsome and good flour, is a white chaff bearded wheat, standing 8 feet on the ground, some 4 feet; from 20 to 36 bushels per acre was obtained last year according to soil and culture. Any land sufficiently in heart to bring good oats will bring a fine crop of this wheat. The millers speak well of it; it makes sweet and good bread.

Yours, truly, J. HATHAWAY.

June 9th, 1837.

I send a sample of the wheat."

INDIAN CORN.

AN ESSAY ON INDIAN CORN

DELIVERED BY

PETER A. BROWNE, Esq. L. L. D.

Professor of Geology and Mineralogy in Lafayette College, Pa. Professor of Geology in the Cabinet of Natural Science in Montgomery county; member of the Geological Society of Pennsylvania; and corresponding member of the Cabinet of Natural Science of Chester county, Pennsylvania, read before the latter Society, April 22, 1837.

(*Continued.*)

In Denmark the chill atmosphere of the climate is less favorable to the cultivation of wheat than barley, rye and oats, all of which afford a large surplus for exportation.

In Sweden and Norway they have one million three hundred and sixty-three thousand acres of land under cultivation, but the annual average of grain sown on each farm does not amount to a bushel, and the produce of the whole country does not exceed seventy-one thousand quarters; hence Sweden, until lately, imported grain to a great extent; and such was the scarcity before 1812, that the peasantry often ground the bark, and even the wood of the fir-trees into flour. In 1827, Sweden exported thirty-nine thousand, and in 1828, one hundred and sixty-four thousand tons of grain of every description.

There is no country in Europe which produces a greater amount of valuable agricultural productions than Holland and Belgium. But their climate being humid, the principal objects of culture in the Dutch Provinces are connected with pasturage.

From careful enquiries carried on by the government of the Netherlands, the agricultural capital of the country is estimated as follows:

	Hectacres.	*Francs.*
Wheat . .	350,000	154,000,000
Rye . .	700,000	168,000,000
Buckwheat .	200,000	32,000,000
Barley . .	280,000	84,000,000
Pulse . .	110,000	48,000,000
Potatoes .	131,000	41,000,000
Oats . .	300,000	84,000,000
Orchards .	54,000	3,000,000
Vegetables .	92,000	55,000,000
Hemp and Flax	210,000	126,000,000
Madder	30,000	21,000,000
Cattle and Animals . . .		150,000,000
		966,000,000

A French hectacre is 2.473614 acres English.

France, in regard to internal economy is one of the richest and most flourishing countries in the world. Grain is raised in sufficient quantities to supply their extensive population with food.—Maize is mixed with other grain in the southern departments. The following is an average produce of grain from 1800 to 1812:

	Hectolitre.
Wheat	51,500,200
Rye	30,200,161
Maize	6,302,315
Buckwheat	8,409,473
Barley	12,576603
Potatoes	19,800,741
Oats	32,066,587
	160,946,081

Average from 1825 to 1828:

	Hectolitre.
Wheat	60,553,000
Other Grains	114,733,000
Potatoes and Chesnuts	46,238,000
Wine	35,500,000

A French Hectolitre is 22.009667 gallons English.

The grain produced in Spain is of an admirable quality, yet they do not grow grain enough for their own use; they make regular importations.

The agriculture of this kingdom is remarkable for producing wool, wine and barilla. The entire number of sheep is five millions.

They consume twelve million quarters of grain annually, of which they raise two-thirds.

Portugal though generally fertile, does not produce one-third of the grain necessary to supply its wants. The chief objects of attention are the vine and the olive.

Maize succeeds in Switzerland, 2000 to 2500 feet elevation.—[Geological Dic. vol 2, p. 58.]

The Missionaries Smith and Dwight, state that they found rich and luxuriant crops of Indian corn growing in Asiatic Turkey.

III. How much is raised in the United States?

I have not been able to arrive at even an approximation to the amount of Indian Corn raised in the United States, although I have spared no pains to obtain it; a gentleman in Missouri writes to me that "on the meadow lands of Missouri, "bordering on the Mississippi River, he saw last "summer thousands of acres of Indian Corn in "Clark, Lewis and Madison Counties which pro-"duced not less than one hundred bushels to the "acre, without any use of the hoe."

A gentleman in Kentucky says, "It is impossi-"ble for me to state any thing like the exact quan-"tity of Indian Corn raised in our State; it is a "principal grain with us, and it is no uncommon "thing for our farmers to plant from one hundred "to five hundred acres each year. In regard to "the quantity exported from this state, I am not "prepared to give any very accurate account, but "believe it to be small in proportion to all other "exports; my reasons are that it is a heavy arti-"cle, and we live far inland,* and our principal "attention has been for many years turned to the "raising of stock, and when we reflect upon the "vast amount of stock driven from our State to "every other part of the United States, it would "be wonderful if we should export any conside-"rable amount of grain of any kind. In order to "give a fair idea of what is thought to be the a-"bility of this and the adjoining State to export "corn, I will mention that I have seen within a "few days an advertisement calling for 20,000 "bushels of corn to be delivered at a single point "on the Mississippi river, and believe the price "has been for some time from one dollar to one "dollar and fifty cents the bushel."

Even in our own State I have been unsuccessful; a gentleman of Chester County writes to me, "I could not venture even to *guess* at an answer "to your ninth question. I can scarcely guess at "the quantity exported. I will, however, submit "to you the following data for a calculation.—"Chester County is about fifty miles long, and "twenty miles wide. About half the land is un-"der cultivation. About one-tenth of the arable "is annually planted with Indian Corn. The av-"erage product of this, is about forty bushels per "acre, or perhaps (taking the whole county,) not "more than thirty bushels per acre. It is proba-"ble that one-third of the whole product is sent "to market. Taking thirty bushels as the average "crop, these data would make about three hun-"dred and twenty thousand bushels of Indian "Corn exported annually from this county. This "I think is a low estimate."

IV. The varieties of Indian Corn.

Catalogue and description of the Specimens in Peter A. Browne's Cabinet of Indian Corn.

A. Yellow Corn.

A a. No. 1. The genuine gourd seed Indian corn, so called from the supposed similitude in shape between its grains and the seeds of the gourd; the spike contains, when thus unmixed with any other variety, twenty-four rows, which is the highest number of rows on any cob of Indian corn I have ever *seen*. I have *heard* of twenty-six rows. When this corn is mixed with any other variety, its spike gradually diminishes in its number of rows until it arrives at the maximum of the variety with which it is mixed.—Examples of these mixtures are seen in

No. 2, of twenty-two rows; No. 3, of twenty rows; No. 4, of eighteen rows; No. 5, of sixteen rows; No. 6, of fourteen rows;* and No. 7, of twelve rows.

A b. No. 8. Is the genuine King Philip Indian Corn, so called from the celebrated Indian chief, "Philip king of the Wampanoags." It has eight rows, which is the lowst number of rows on any spike of Indian corn. It is a hardy plant, belonging to a high latitude, the seed was originally obtained from the aborigines of the north.

This variety mixes well with the gourd seed, and Nos. 2 to 6 inclusive are the products of these essays. No. 7 is a mixture of Nos. 1, 8, and 22.

A c. No. 9. The Sioux or yellow flint Indian corn, with twelve rows. The seed was obtained from the Sioux tribe of Indians, who at the settlement of Canada, inhabited the north, but who are now residents of the west.

*Spring Valley, Fayette County.

*Called in Maryland the Dutton Corn.

No. 10. The Sioux, grown in Pennsylvania. Twelve rows.

No. 11. The Sioux and gourd-seed, mixture. Sixteen rows.

B. White Indian corn.

B a. White flint. *B b.* White flour corn.

B c. White Sacharine, or sweet Indian corn.

B a. No. 12. Genuine white flint. Twelve rows. Virginia.

No. 13. White flint. Ten rows.

No. 14. Early white flint. Twelve rows.

B b. White *flour* corn.

No. 15. From Peru. Eight rows.

No. 16. Pennsylvania. Eight rows. Called in Maryland, Smith's early white.

No. 17. New-Jersey. Eight rows.

No. 18. New-York. Ten rows.

B a. & B b. Mandan Indian corn.

No. 19. A mixture of No. 12 and No. 15. Grown in the Indian village of Mandan.

B c. White Sacharine or sugar corn.

No. 20. The early Sacharine, twelve rows, grains shrunken.

C. Hæmetite, or blood red Indian corn.

No. 21. Common sized hæmetite, with 12 rows and red cob.

No. 22. The red cob with white grains.

No. 23. The red cob with yellow grains.

No. 24. The red cob with brown grains.

No. 25. The red cob with white gourd seed.

No. 26. The red cob with gourd seed and yellow flint.

No. 27. White cob with red grain.

No. 28. Speckled red and yellow grains on a white cob.

No. 29. The same on a red cob.

No. 30. The dwarf hæmetite, commonly called Guinea corn.

D. Blue corn.

No. 31. Blue corn. Ten rows.

E. No. 32. The corn of Texas; each grain is enclosed in a pod or husk, and the ear in a husk.

No. 33. Corn found in an envelope of a Mexican mummy.

No. 34. Corn grown near Sheffield, Yorkshire, England, in 1835, from seed raised by Wm. Cobbett.

No. 35. The famous Dutton corn.

A former collection made by me, and presented to the Royal Academy of France, (Paris,) contained forty-two varieties.

V. Of the varieties of Indian corn, which kind is preferred for cultivation?

Mr. Taylor says, that in selecting Indian corn regard should be had to three circumstances.

1st. The most stalk.
2d. The largest cob.
3d. Longest grain.

To which I will add, 4th, early growth and quick culture.

Upon the size of the stalk he sets a high value. 1st, because it produces some economy in labor; for one man can gather far more grain, stalk, blade top, shuck and cob, in the same time when the plant is large than when it is small.

2d. It produces a greater quantity of fertilizing matter to be returned to the soil.

3d. The longest and thickest cob (if the length of the grain is equal) produces the most corn.

4th. Length of the grain, (supposing the cob to be equally long and large) decidedly settles the superiority of the farinaceous product.

5th. The earliest corn, and that which comes quickest to maturity, is most esteemed by the horticulturist, as it commands the best prices for the table, but it is generally dwarfish.

VI. Capability of preservation and retention of power of germination.

That Indian corn, when well dried, will keep for many years and preserve its capability of germination, is stated by most writers upon the subject; but none of them that I have consulted, specify the particular time it may be kept, or set any limit to its re-productive property. The ear or spike of corn found in the envelope of the Mexican mummies will serve to put this question to the test, for Mr. Peale has obligingly consented that the experiment may be tried upon a few grains. The result will be communicated.

To prevent the seeds of corn from germinating, they should be kept *dry;* no seed can germinate without *moisture.*

No germination takes place in pure carbonic acid, hydrogen, or nitrogen gas, or very rarified air, nor do these gases destroy the seed; they merely prevent its developement into a plant.

Nor will any germination take place in a temperature below the freezing point of water.

VII. The method of cultivating Indian Corn in the United States.

Col. John Taylor of Caroline County, Virginia, gives us the following account of the method of cultivating Indian Corn in Maryland, Virginia, and North Carolina; [Arator Balt. 1817; p. 101.]

"The rows are never ploughed but in one direction, cross ploughing being wholly abandoned. Their width is five and a half feet. The field being once thrown into the position of ridges and furrows, never requires to be laid off again. The furrow is left as deep as possible, and when the field comes again into tillage, the list or ridge is made upon this furrow, so that there is a regular alternity between ridges and furrows. If the soil is of a friable nature, a large plough drawn by 4 horses, and cutting a sod about 12 inches wide and 8 deep, is run on each side of this old furrow, and raises a ridge in its centre, on which to plant the corn. The old ridge is split by a large trowel-hoe-plough, having a coulter on the point, two mould-boards drawn by four horses, and cutting ten inches deep. If the soil is stiff or tough with turf, then first plough with four horses, ridges or lists on the old water furrow, with four furrows of the same depth and width. On the summit of this ridge or list, a deep and wide furrow is run with a trowel-hoe-plough and two mould-boards, in which the corn is planted, and covered between two and three inches deep with the foot. The planting is guided by a string carried across the ridges, with coloured marks at the distance apart intended for the corn. This furrow is a complete weeding of the ridge, previous to planting, which it should barely precede. The corn receives no more ploughing until it is thinned and hand-hoed along the rows, about two feet wide. After this, a deep furrow is run on each side of it, by a large plough, drawn by two horses, with a mould-board, causing the earth thrown out of it to meet at the corn, though the furrow is a foot from it. Thenceforth the tillage consists of a streak or furrow, of a mere weeding plough called a 'skimmer,' cutting with two wings, twenty-four inches, drawn by one horse; and of a central, deep and wide furrow made with a trowel-hoe-plough and two mould boards, drawn by two horses; to be repeated when necessary. The whole to be concluded with a narrow weeding or hand-hoe, along the slip, in the direction of the row, not kept completely clean by the skimmer."

The advantages of this method of cultivating corn with high ridges and deep furrows, Mr. Taylor states [p. 102,] to be, "that the corn is planted immediately over the furrow of the preceding crop, and by completing the reversal of the ridges early in its culture, it grows upon a depth of tilth three or four times exceeding what is attained by planting and cross ploughing in the usual mode. Its roots are never cut in one direction, and this great depth of tilth thus early obtained, by superceding the occasion for deep ploughing in the latter period of its growth, saves them in the other. The preservation of the roots and their deeper pasture, enables the corn much longer to resist drought. The litter of enclosed ground, thrown into the deep furrow upon which the corn list is made, is a reservoir of manure, far removed from evaporation; within reach of the roots, which will follow it along the furrow; and calculated for feeding the plant in droughts. The dead earth brought up by the plough from the deep furrow, is deposited on each side of it, without hurting the crop on the ridge, and with the bottom of the furrow remains four years to be fructified by the atmosphere, so as to escape the present loss sometimes accruing from mingling too much dead earth with the soil by deep flat ploughing; and yet to mellow and deepen it more rapidly. And much labor is saved in planting the corn, whether the hoe is used after a string, or the string is carried across furrows previously made on the ridge.

In all lands unable to produce forty bushels of corn to the acre, the proper distance is five and a half feet square, with two or three stalks at each station, except in poor spots, where one will suffice. If it can produce that crop or more, he plants it at the distance of five feet six inches by 2 feet 9 inches, leaving two stalks in sandy and three in stiff lands.

The ridges upon which the corn is to be planted should run north and south, to equalize the benefits and injuries derived from the sun.

In regard to curing the blades, which are called fodder, he observes [p. 192.] that it must be carefully preserved from the sun, and from rains and dews. If it is shocked, there should be a flue from the side the wind generally blows at that season, and up the centre, to admit of a free circulation of air. The ends of the blades must be laid forward.*

*The Indians of our country had an opinion that the best time for planting Indian corn, was when the leaves of the white oak (Quercus alba) first made their appearance; or, according to their expression, are the size of a squirrel's ears.—Mrs. Lincoln's Bot.

(To be Continued.)

[From the Genesee Farmer.]

THE TURNIP CULTURE.

All British writers agree, that the introduction of the turnip culture into Great Britain, which is of comparative recent date, has contributed more than any other improvement in rural economy to the advancement of agriculture. This culture is of very recent introduction here, and indeed may be said hardly yet to have obtained a footing among us. Yet from the limited experiments which have been made, and from the rapid extension of the culture within the two last years, we have reason to believe our climate and soil are well adapted to the growth of this root; and that although it requires some extra labor to secure the crop for winter and spring use, it may nevertheless be cultivated here to great advantage.

The benefits that result to the farmer from the culture of turnips, as a field crop, are three-fold, viz. 1. They serve to ameliorate the soil, and are excellent as a green crop, to alternate with grain and grass. 2. They afford the most animal food, at a given expense, on a specific measure of land. And 3. They return the greatest quantity of manure to the soil. The turnip, like the clover and root crops generally, not only exhaust the soil least, but make up for this exhaustion, in a measure, by dividing and pulverizing the soil, and freeing it from weeds. Although 20 tons an acre may be deemed a fair average crop, the product has in many cases been carried beyond 60 tons. They come in use at a season when succulent food is most in demand; they are eaten by all kinds of farm stock, and constitute, in Britain, the principal material for winter fattening beef and mutton. It will be seen in our March number, that turnip feed is estimated to add one quarter to the dung of the cattle yard. These considerations induce us to add to the facts we have already published, in regard to the turnip culture, such others as may tend to increase their growth among us.

Soil—The *soil best adapted to turnips* is of a dry bottomed, free nature, of some depth and fertility; but, although distinctively termed 'turnip land,' it yet comprises every species of earth which can be profitably used for any arable purpose, provided it be light, dry and friable: consequently exclusive of heavy clays. It must, however, be understood, that although the common root can be grown on the poorest sands and gravels, yet there are some species which require stronger soils—even rich free loams; and they all demand very careful culture, with an abundant supply of manure. The plant delights in a 'cool, temperate and moist climate,' and therefore will thrive best in the northern section of the union and in elevated districts.

Species—Although the varieties are numerous, the British writers class them under the heads of white and yellow species, and Swedish. The latter has gained a decided preference, on account of its superior richness and long keeping property. Yet, as affording earlier feed, and as enabling them to preserve the Swedes till late winter and spring, the extensive turnip growers in Europe generally cultivate also the white and yellow. The white turnips,—the white globe is preferred—are fed first; the yellow, which are richer, and keep longer than the white, particularly the Aberdeen yellow, are fed next, and the ruta baga last. The roots of the Swedish are at least one third heavier than the other species, and their tops are so much more palatable that cattle after being fed upon them, will not eat the common kinds, unless impelled by hunger. They are besides more hardy—a large quantity having stood the severe winter of 1835-6, in the open ground, without material injury; though it should be mentioned that they were sown very late, and had not attained their natural growth. They differ in another respect from most other roots—the larger they grow, the greater is their specific weight and nutritive properties. We will add another remark—there are varieties of the ruta baga differing greatly in excellence. The true sort has yellowish flesh, a globular shape, and is without a stem; but it is apt to degenerate by the flesh becoming white or by the crown running up into a stem of more or less length. None but the true kind should be employed for seed. Besides, the species requires a richer soil than will grow the other kinds.

Seed and Sowing—The time of sowing should vary according to the kind and climate. It has been suggested, that if the white and yellow were sown in April or May, as in Britain, they would afford fattening materials for cattle and sheep in September and October. We do not know that the experiment has been tried, but we doubt its success, on account of the heats of our summer being unfavorable to their growth. From several years experience with all the kinds, we recommend for this latitude, from the 20th June to the 1st July for the ruta baga; from the 5th to the 15th July for the yellows and globe, and from the 20th to the 30th July for the flat red and green top; the first of these periods for cold soils and elevated districts, and the latter for warmer situations. For table use, where large size is an objection, the Swedes may be sown in the early part of July, and the flat kinds early in August. Half a pound of good seed will give plants enough for an acre, put in with a drill harrow; yet as many seeds will not vegetate, and as the plants are liable to be destroyed by the fly, we generally allow a pound of seed to the acre, and some give double this quantity. The seed should be full bodied and black, the green and yellow often proving abortive.

Culture—The drill culture is decidedly best for the Swedes, and for the other large varieties, on account of the greater facility of cleaning and stirring the ground with the cultivator among them. The British writers recommend ploughing directly after harvest of the preceding year. This would be a waste of labor and of ground here. Early southern clover may be cut in time to put in even the Swedes here, and our small grain is off the field here generally in time to sow the white and yellow as a second crop upon the stubble. And at all events, if the crop is put on tilled land, the more recent the ploughing and harrowing before sowing the better. If sown broadcast, the ground should be afterwards rolled, and the crop hand hoed and thinned as soon as the plants have well put forth their first rough leaves. The manure, which should always be applied to this crop, is differently applied. If long manure is applied, we would prefer to have it spread and covered with the plough; though if it is applied moist, or is immediately after covering saturated with an abundant rain, it may be advantageously applied in the drills. There is a greater propriety in applying short manure, or bone dust, in the drill to this crop, than to almost any other, as the roots gather their food within a limited space. We have seen short muck applied as a top dressing to the common turnip, when sown broadcast, with the best effect. When cultivated in the drill system, with the manure deposited in the drills, the usual distance between the rows is twenty-seven to thirty inches.

In sowing, the drill harrow, of which several kinds are now for sale, is the best implement to use. A man walks briskly forward with one of these before him, propelled like a wheel-barrow. The drill is made, the seed sown, covered, and by some the ground rolled, as he advances. Where this implement cannot be had, a small implement formed like a pepper-box, with holes at one end, and fastened to the end of a walking stick, and followed by a man with a rake to cover the seed, may be substituted. Sow upon the fresh stirred soil.

After the sowing is completed, the plants generally make their appearance in from five to eight days; and if the weather is showery, they will soon grow into what is termed the rough leaf when they are a couple of inches high. The process of horse hoeing then commences, by running the cultivator, or light plough, up and down between the rows, as near to the plants as can be done without injury, or within three inches of them, so as to cut up any weeds that may have sprung up. In two or three days this should be followed by the hand hoe. The weeds should all be eradicated, and the plants thinned, by drawing the hoe cross-wise of the row, so as to leave them standing single at the distance of eight or ten inches. The cultivator may be subsequently once or twice passed again between the rows, and the few weeds that will spring up be destroyed. The turnip crop may be advantageously followed with spring wheat or barley.

Quality.—The relative portion of nutriment afforded by each of the following species, has been estimated by the late Mr. George Sinclair, as amounting, in 64 drachms, to

White tankard,	76	grains.
Common white loaf,	80	"
Norfolk white	83	"
Stone or garden,	85	"
Swedish turnips,	110	"

The *Turnip Fly* is the greatest enemy to the crop; and although many preventives have been recommended, no particular one seems to have given full confidence. Soot and quick-lime have been strewed along the drills, and on the young leaves, at the rate of six bushels per acre, with good success. This mixture is applied when the leaves are dry. Some sow radish seed with their turnips, which first attract the fly. The London Society of Arts awarded a gold medal for this mode of prevention, which consists in drilling thick, a row of common turnips between the rows of ruta baga. The fly destroyed the former, and spared the Swedes.

Gathering the Crop.—The roots may be generally drawn by the hand, or with a potato hook. They should be topped and tailed, and be permitted to lay upon the ground till the loose dirt

separates from the roots. We have described the best mode of performing these processes in two or more of our numbers. They should not be cut too close, nor the roots wounded, lest it causes them to rot.

Storing.—They may be stored in cellars or pits, as before described. Let the pits not exceed three feet in breadth, raise the roots a foot above the surface of the ground, sloping from the sides to the centre, cover with a good thickness of earth, and by all means take care to ventilate at the crown of the pile, to prevent the roots heating and becoming rotten.

Use.—The ruta baga, in particular, is eaten by all farm stock,—sheep and oxen are fattened upon them. They are almost invariably fed raw, but require to be cut, or sliced. There are machines for doing this in a summary way; but the labor is readily performed with a spade or meat smirk.

"The extended culture of the turnip," says Prof. Lowe, "has enabled us to carry the practice of breeding and feeding our domestic animals to a state of perfection, in which no other country has yet been able to rival Great Britain. The cultivation of the plant in rows, instead of the former method of broadcast, may well be regarded as an improvement of the highest importance. It has enabled the farmer to secure abundant returns, which the former methods of cultivation did not admit of, and so to increase the number of useful animals, that may be maintained upon the farm, and to subject the lighter soils to a species of culture more beneficial than any other that had been before devised for them."—*Cultivator.*

CROPS AND SOILS TO WHICH THEY ARE ADAPTED.

The annexed table, says the writer of British Husbandry, has been given by Von Thaer, as a classification of soils, which we deem entitled to particlar attention, as in some degree governing the course of crops; for, although the real value of every rotation depends, in a great measure, upon the manner in which its several processes are executed; yet abstractly speaking, some courses must be viewed as better than others, because the crops may be more suitable to the peculiar qualities of the land on which they are to be grown. The last column in the table comprises an analysis of the comparative value of the different component parts, and is the result of many years careful examination of the soils, as well as of the proceeds of the crops, after the deduction of labor and seed.

No.	SOILS.	Clay per cent.	Sand per cent.	Carb. of lime, per cent.	Humus per cent.	Value.
1	First class of strong wheat soils,.....	74	10	4¼	11½	100
2		81	6	4	8½	98
3		79	20	4	6½	96
4		40	22	36	4	90
5	Rich barley land,....	20	67	3	10	78
6	Good wheat land,..	58	36	2	4	77
7		56	30	12	2	75
8		60	38		2	70
9	Ordinary wheat land,	48	50		2	65½
10		68	30		2	60
11	Good Barley land,..	38	60		2	60
12	Ordinary barley land.	33	65		2	50
13		28	70		2	40
14	Oat and rye land...	23½	75		1½	30
15		18½	80		1½	20

Small quantities in each.

It will be perceived, that the wheat soils possess from 40 to 81 per cent. of clay, and at least two per cent. of carbonate of lime, which latter seems to be an indispensable ingredient in a wheat soil; and that [illegible] barley, oats nor rye, and we may extend [illegible]ark to Indian corn and turnips, require [illegible]te of lime, though this always gives a chemical and mechanical improvement to the soil, by rendering sands more compact, and more retentive of moisture and manure. Those soils in which sand predominates over clay, are best adapted to the growth of Indian corn and ruta baga, though for both they should be artificially enriched by a good coat of manure.

Nos. 1, 2 and 3 are alluvial soils of the richest quality, and embrace much of the land of secondary formation west of the great Allegany range: and from the large portion which they contain of vegetable mould, or humus, and the intimate state of mixture in which it is found, they are not so stiff as the quantity of clay which they contain would seem to indicate. From the absence of carbonate of lime in our primary formation east of the Allegany, many districts, although having the other earthy ingredients and humus, are not congenial to the growth of wheat.

No. 4, is a fine clay loam such as abounds in many parts of this state, and is termed our best barley soil; and, although what may be termed strong land is yet of a texture which renders it easy to be worked; it is consequently evidently suitable to the alternate system of husbandry.

Nos. 6 and 7 are both good soils—the quantity of carbonate of lime compensating, in a measure, for the smaller portion of humus; but necessarily requiring the addition of a proportionate quantity of dung to supply that deficiency.

Nos. 9 to 13 are adapted to the Indian corn crop, always, however, requiring manure to render it profitable. They are of average quality of common tillage land; yet, from want of carbonate of lime, are sensibly improved by mild lime, drawn ashes and marl.

Nos. 14 and 15 are denominated light sands, which when manured and judiciously managed, by frequent alteration of grass, the application of gypsum, and the pasturing of sheep, may be kept in heart, and rendered productive.

Scarcely any soils contain more than five per cent. of humus; but if the staple of the land be loamy, even two per cent. will render it fit for the production of grain. The friability of its texture is, indeed, an object of the first importance, for it is a great saving of labor and expense; and if the ground be tolerably well managed and dunged, it can always be maintained in good heart.

The analysis which has been thus given of soils, extends only to the depth of six inches from the surface, without reference to the subsoil, which may greatly affect their value; for however rich soils may be, if that be either too porus or too retentive, they may be rendered, in certain seasons, unproductive. If, however, they contain a layer of nine inches to a foot of good earth, the subsoil may then be considered of little consequence; though a limestone bottom will always command a preference. The exposure, with regard to the sun, and the situation of the land, in respect to its shelter from cold winds, are, also, objects of such extreme importance, that they may make a difference in point of climate equal to several degrees of latitude. This should serve as a hint to those who commence improving new farms or who have wood land in reserve, to leave a belt of wood on the exposed quarters of their farms or fields.

Our readers will be able to perceive from the foregoing, that it is of importance to the farmer to be able to ascertain the composition of his soils. The analysis of soils may be taught in our schools, as readily as a rule in arithmetic—if our school masters knew how to teach the process.

CULTIVATION OF THE SUGAR BEET.

The subscriber will be greatly obliged to individuals who favor him with queries on the beet subject, either to pay the postage of letters addressed to him, or to write on one sheet without envelope, as may suit their convenience. His knowledge of the subject is very limited, being confined chiefly to the few works which were published before 1837, the essential part of which are to be found in Mr. Church's valuable little work, and to a very brief and imperfect experience.

Any rich deep loam will produce large beets, and any well pulverised soil will yield good sugar. I think it may safely be affirmed, that the 15th of May is early enough, and the 15th of June late enough, to sow beet seed. On the subject of transplanting, they should be thinned out when 3 or 4 inches high, leaving 10 or 12 inches between the plants, and in no case should two plants be left together. The plants pulled up may be again set out in rows. Select the straightest roots and place them carefully in holes made with a sharpened stick deep enough to admit the *whole length* of the root, and not to curl or bend it. The extremity is by no means to be cut off or lacerated, as recommended by many; this will inevitably cause the root to send forth fibres and grow crooked, instead of keeping its straight, long and solid form; when there are fibres and crooked, the earth sticks to them in harvesting, and they are cleaned with great difficulty, besides being light, and containing far less of the saccharine matter than the fair, long, straight, regular roots.

The principle of transplanting is generally considered to be laborious and expensive, particularly as the beets removed seldom do so well as those which remain. Nevertheless, there are not wanting among the scientific, those who believe it the best way of cultivating the beet. Mr. Chaptal recommends the practice of sowing in garden beds a nursery, (en pepiniese,) and transplanting *all* the roots (repiquage en plein.) A man will easily set out 2000 plants in a day on ground properly prepared, and a boy might do as much.

H. O. APTHORP.

To make fire and water proof Cement—To half a pint of vinegar add the same quantity of milk; separate the curd, and mix the whey with the white of five eggs; beat it well together, and sift into it a sufficient quantity of quick lime to convert it to the consistency of a thick paste. Broken vessels mended with this cement, never afterwards separate, for it resists the action both of fire and water.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

☞ These Prices are carefully corrected every MONDAY.

	PER	FROM	TO
Beans, white field,	bushel.	1 50	1 75
Cattle, on the hoof,	100lbs	—	9 00
Corn, yellow	bushel	94	95
White,	"	90	91
Cotton, Virginia,	pound	—	—
North Carolina,	"	—	—
Upland,	"	10	12¼
Louisiana 20a21—Alabama	"	—	—
Feathers,	pound.	50	52
Flaxseed,	bushel.	1 37	1 50
Flour & Meal—Best wh. wh't fam	barrel.	—	—
Do. do. baker's	"	—	—
"	"	—	—
Super How. st. in good de'd	"	8 75	9 00
" " wagon price,	"	—	—
City Mills, super	"	8 25	8 75
" extra	"	8 50	9 00
Susquehanna,	"	2 00	—
Rye,	"	6 00	—
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
Grass Seeds, red Clover,	bushel.	6 00	6 50
Timothy (inside of the north)	"	3 00	3 50
Orchard,	"	—	3 00
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
Hay, in bulk,	ton.	12 00	18 00
Hemp, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	—	6 50
Slaughtered,	"	—	—
Hops—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
Lime,	bushel.	32	35
Mustard Seed, Domestic, —; blk.	"	3 50	4 00
Oats,	"	50	51
Peas, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	1 12	—
Plaster Paris, in the stone, cargo,	ton.	3 00	—
Ground,	barrel.	1 62	—
Palma Christa Bean,	bushel.	—	—
Rags,	pound.	3	4
Rye,	bushel.	87	—
Susquehannah,	"	—	none
Tobacco, crop, common,	100 lbs	2 50	3 00
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappary, suitable for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
Wheat, white,	bushel.	1 50	1 80
Red, best	"	1 60	1 70
Maryland inferior	"	1 00	1 25
Whiskey, 1st pf. in bbls.	gallon.	—	35
" in hhds.	"	—	34
" wagon price,	"	bbls	30
Wagon Freights, to Pittsburgh,	100 lbs	1 25	— —
To Wheeling,	"	1 50	—
		washed.	unwash
Wool, Prime & Saxon Fleeces,	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do.	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given to her. Applications made in writing must be post paid, to EDW. P. ROBERTS,
ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
Apples,	barrel.	—	—
Bacon, hams, new, Balt.	pound.	—	12½
Shoulders,	"	—	10
Middlings,	"	do	do
Assorted, country,	"	8½	9
Butter, printed, in lbs. & half lbs.	"	25	—
Roll,	"	16	20
Cider,	barrel.	—	—
Calves, three to six weeks old	each.	5 00	7 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
Corn Meal, for family use,	100lbs.	2 06	2 12½
Chop Rye,	"	1 75	1 87½
Eggs,	dozen.	18	—
Fish, Shad, No. 1, Susquehanna,	barrel.	7 50	—
No. 2,	"	7 00	—
Herrings, salted, No. 1,	"	2 87	—
Mackerel, No. 1, —— No. 2	"	8 00	9 00
No. 3,	"	—	4 50
Cod, salted,	cwt.	3 00	3 25
Lard,	pound.	9	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	VIRGINIA.	
Branch at Baltimore,	do	Farmers Bank of Virgin.	2
Other Branches,	do	Bank of Virginia,	do
MARYLAND.		Branch at Fredericksburg	do
Banks in Baltimore,	par	Petersburg,	do
Hagerstown,	¼a	Norfolk,	do
Frederick,	do	Winchester,	do
Westminster,	do	Lynchburg,	2½
Farmers' Bank of Mary'd,	do	Danville,	do
Do. payable at Easton,	1	Bank of the Valley,	2
Salisbury, 2 per ct. dis.		Branch at Romney,	2½
Cumberland,	3	Do. Charlestown,	2
Millington,	do	Do. Leesburg,	2
DISTRICT.		Wheeling Banks,	4
Washington, Georgetown, Alexandria, Banks,	¼p.c.	Ohio Banks, generally	6a7
PENNSYLVANIA.		New Jersey Banks gen.	5
Philadelphia,	¼a	New York City,	par
Chambersburg,	1	New York State,	3a4
Gettysburg	do	Massachusetts,	3a3½
Pittsburg,	3½	Connecticut,	3a3½
York,	1	New Hampshire,	3a3½
Other Pennsylvania Bks.	¾	Maine,	3a3½
Delaware [under $5]	6	Rhode Island,	3a3½
Do. [over 5]	2	North Carolina,	6
Michigan Banks,	10	South Carolina,	8a10
Canadian do.	10	Georgia,	do
		New Orleans,	15

INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:——WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior sty'e—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs. JOHN T. DURDING & CO.
je 27 4t Fronting Grant and Ellicott sts.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreths grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.
Feb. 14

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators
Superior Grain Cradles
Weldron Grain and Grass Scythes
Farwell's Patent Double Back Grass, Scythes and Snathes
Hay Forks and Rakes
Manure Forks, Shovels, &c.
English Corn Hoes
Superior American made Casteel Hoes, with handles
Wheat FANS, of various sizes
Mattocks, Picks and Grubbing Hoes
Corn Shellers
Threshing Machines, with or without horse power
F. H. Smith's Patent Lime Spreaders
A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Swingle Trees and Hames
Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Liberal discount made to those who purchase to sell again.

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
jy 4 J. S EASTMAN.

HARVEST TOOLS, &c.

Grain and Grass SCYTHES of most approved stamp—GRASS SNEATHES, with Scythes and Hangings complete; GRAIN CRADLES, 4 to 8 fingers, with warranted scythes attached; Dutch and American SICKLES; SCYTHE STONES and STRICKLES, for whetting Scythes, BRAMBLE SCYTHES and HOOKS, for cutting briars and bushes; Mowers' and Cradlers' Hammers, Hay and Grain RAKES, Steel spring HAY FORKS.

And constantly kept for sale, PLOUGHS of various patterns, Cultivators for corn and tobacco, Wheat Fans, common and patent CORN SHELLERS, Cylindrical and common STRAW CUTTERS, Drills Machines for planting corn, beans, turnip seeds, &c.

Also, a large assortment of Garden and Field Tools, embracing most sorts used in garden nurseries, &c.

For sale by ROBERT SINCLAIR, Jr. & CO.
june 6 4t

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 44½ inches high, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to EDWARD P. ROBERTS,
Ap. 18. 4t. Baltimore, Md.

CONTENTS OF THIS NUMBER.

Notice of an essay on the turnip culture—Cline's combined plough—notice of a correspondence on the tobacco interest—letter of Tho. F. Bowie on do.—do. of Riley and Van Arminge on do—Spring Wheat—continuation of professor Browne's essay on Indian corn—essay on the turnip culture—cultivation of the sugar beet—to make cement—advertisements—prices current.